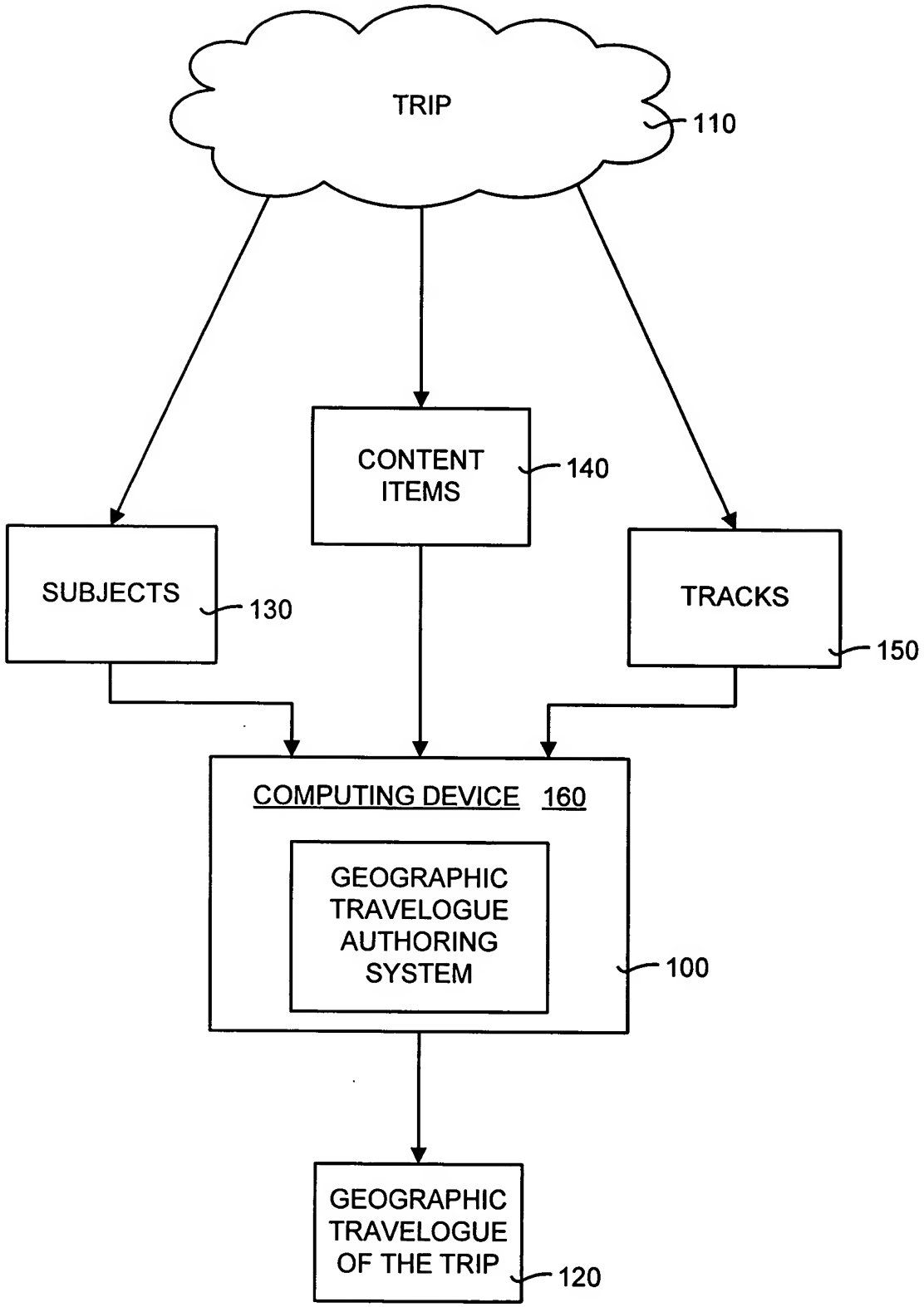
TRIP
110
CONTENT ITEMS
140
SUBJECTS
130
TRACKS
150
COMPUTING DEVICE 160
GEOGRAPHIC TRAVELOGUE AUTHORING SYSTEM
100
GEOGRAPHIC TRAVELOGUE OF THE TRIP
120

FIG. 1

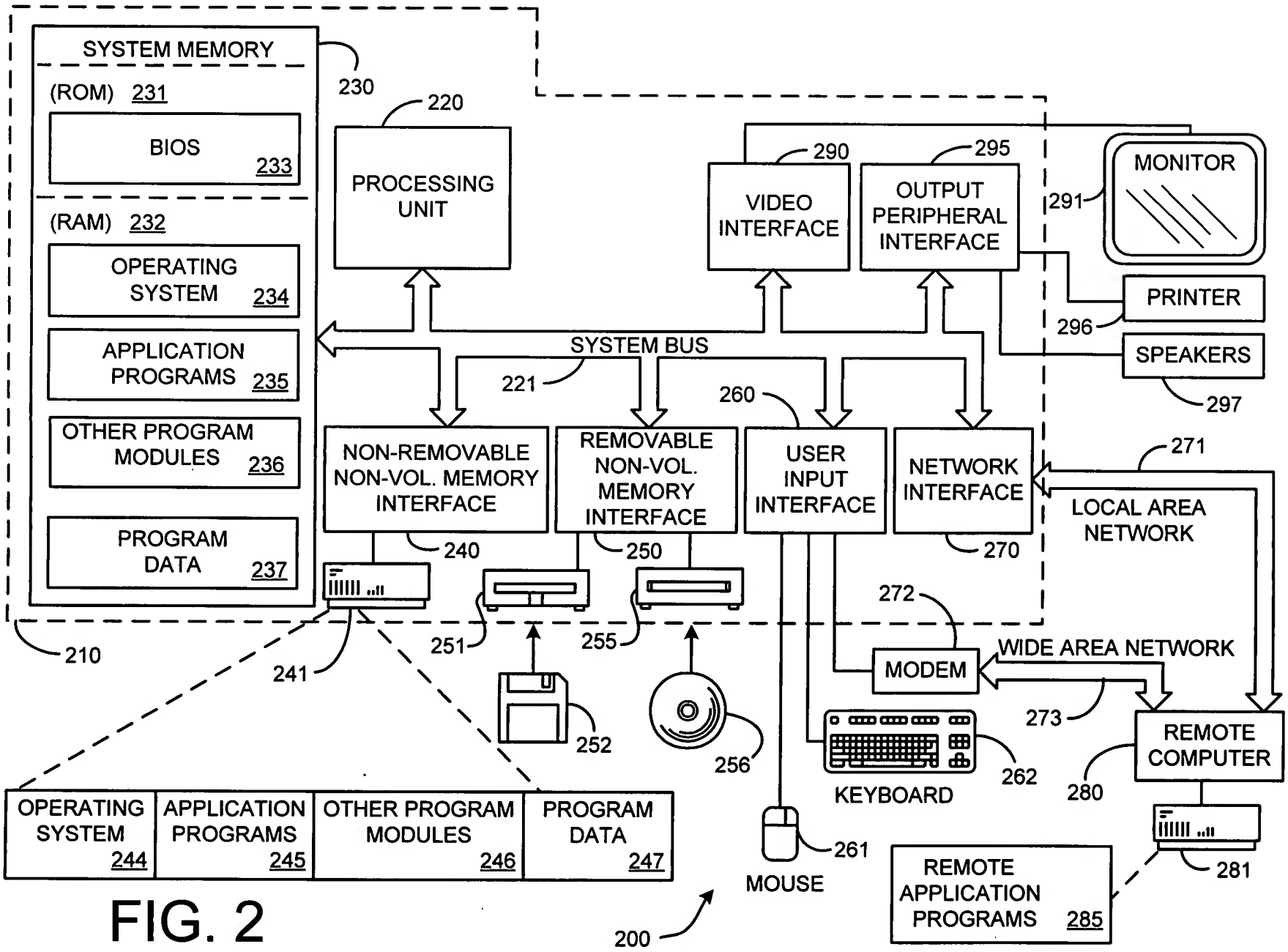
SYSTEM MEMORY
230
(ROM) 231
BIOS 233
(RAM) 232
OPERATING SYSTEM 234
APPLICATION PROGRAMS 235
OTHER PROGRAM MODULES 236
PROGRAM DATA 237
220
PROCESSING UNIT
290
VIDEO INTERFACE
295
OUTPUT PERIPHERAL INTERFACE
MONITOR
291
PRINTER
296
SPEAKERS
297
SYSTEM BUS
221
260
NON-REMOVABLE NON-VOL. MEMORY INTERFACE
REMOVABLE NON-VOL. MEMORY INTERFACE
USER INPUT INTERFACE
NETWORK INTERFACE
271
LOCAL AREA NETWORK
240
250
270
210
241
251
255
272
MODEM
WIDE AREA NETWORK
273
252
256
262
KEYBOARD
REMOTE COMPUTER
280
OPERATING SYSTEM 244
APPLICATION PROGRAMS 245
OTHER PROGRAM MODULES 246
PROGRAM DATA 247
261
MOUSE
281
REMOTE APPLICATION PROGRAMS 285
200

FIG. 2

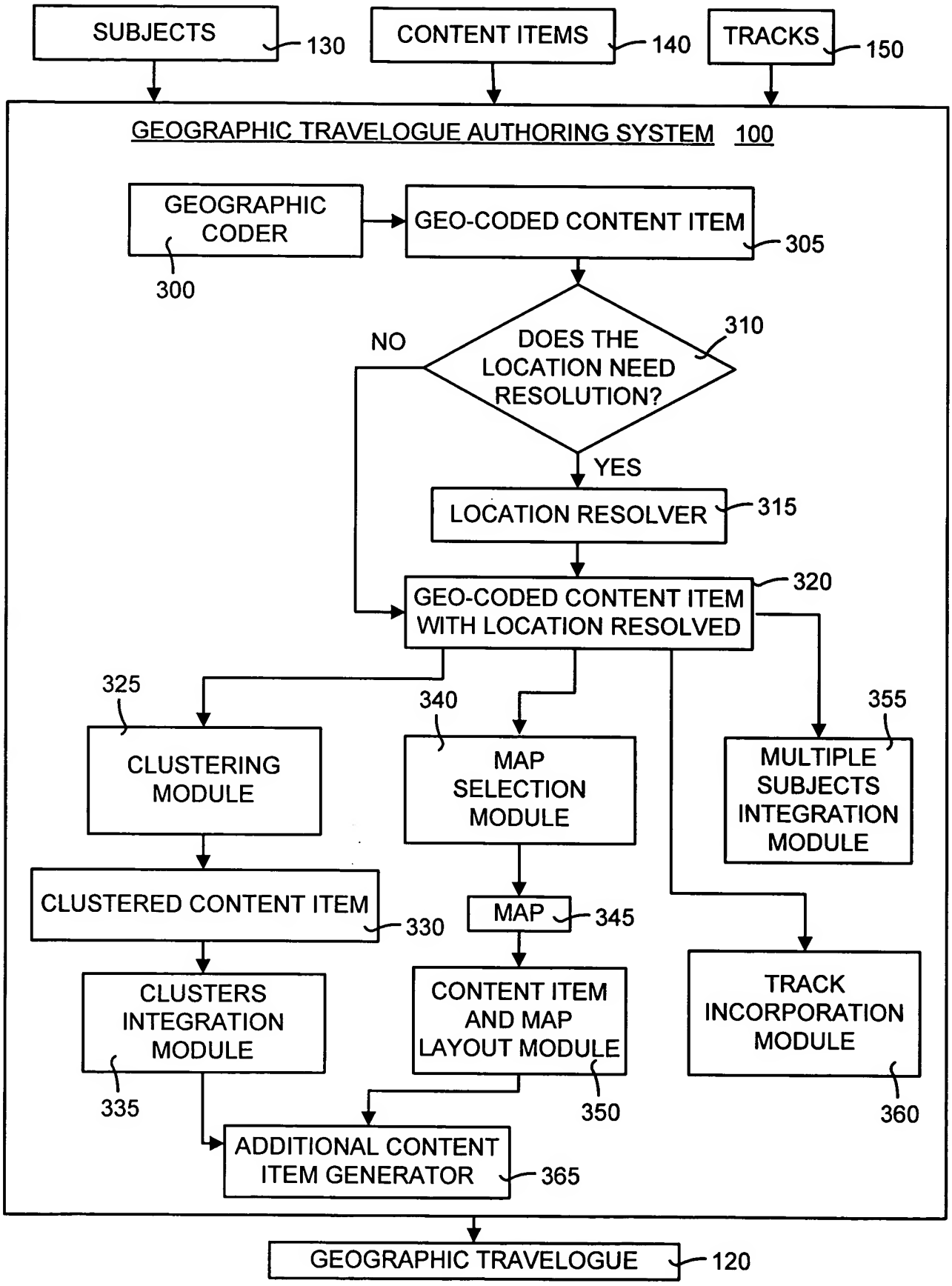
SUBJECTS
130
CONTENT ITEMS
140
TRACKS
150
GEOGRAPHIC TRAVELOGUE AUTHORING SYSTEM 100
GEOGRAPHIC CODER
300
GEO-CODED CONTENT ITEM
305
DOES THE LOCATION NEED RESOLUTION?
310
NO
YES
LOCATION RESOLVER
315
GEO-CODED CONTENT ITEM WITH LOCATION RESOLVED
320
325
CLUSTERING MODULE
340
MAP SELECTION MODULE
355
MULTIPLE SUBJECTS INTEGRATION MODULE
CLUSTERED CONTENT ITEM
330
MAP
345
CLUSTERS INTEGRATION MODULE
335
CONTENT ITEM AND MAP LAYOUT MODULE
350
TRACK INCORPORATION MODULE
360
ADDITIONAL CONTENT ITEM GENERATOR
365
GEOGRAPHIC TRAVELOGUE
120

FIG. 3

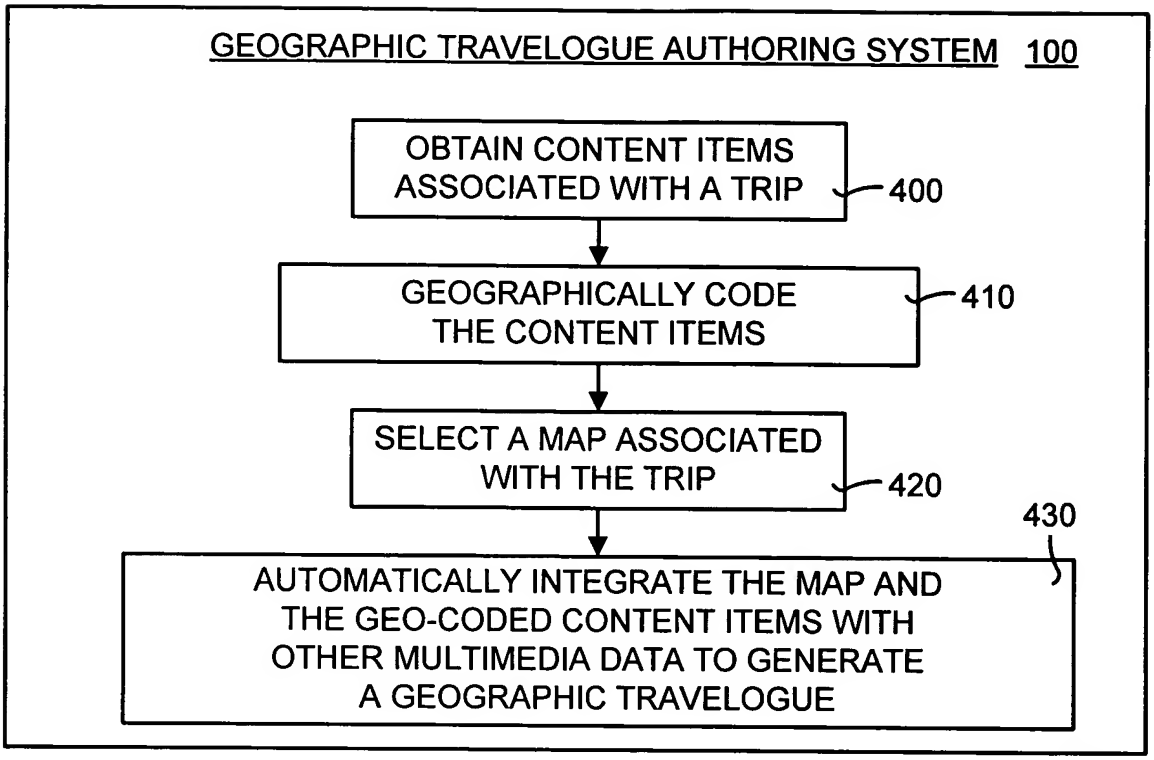
GEOGRAPHIC TRAVELOGUE AUTHORING SYSTEM 100
OBTAIN CONTENT ITEMS ASSOCIATED WITH A TRIP
400
GEOGRAPHICALLY CODE THE CONTENT ITEMS
410
SELECT A MAP ASSOCIATED WITH THE TRIP
420
430
AUTOMATICALLY INTEGRATE THE MAP AND THE GEO-CODED CONTENT ITEMS WITH OTHER MULTIMEDIA DATA TO GENERATE A GEOGRAPHIC TRAVELOGUE

FIG. 4

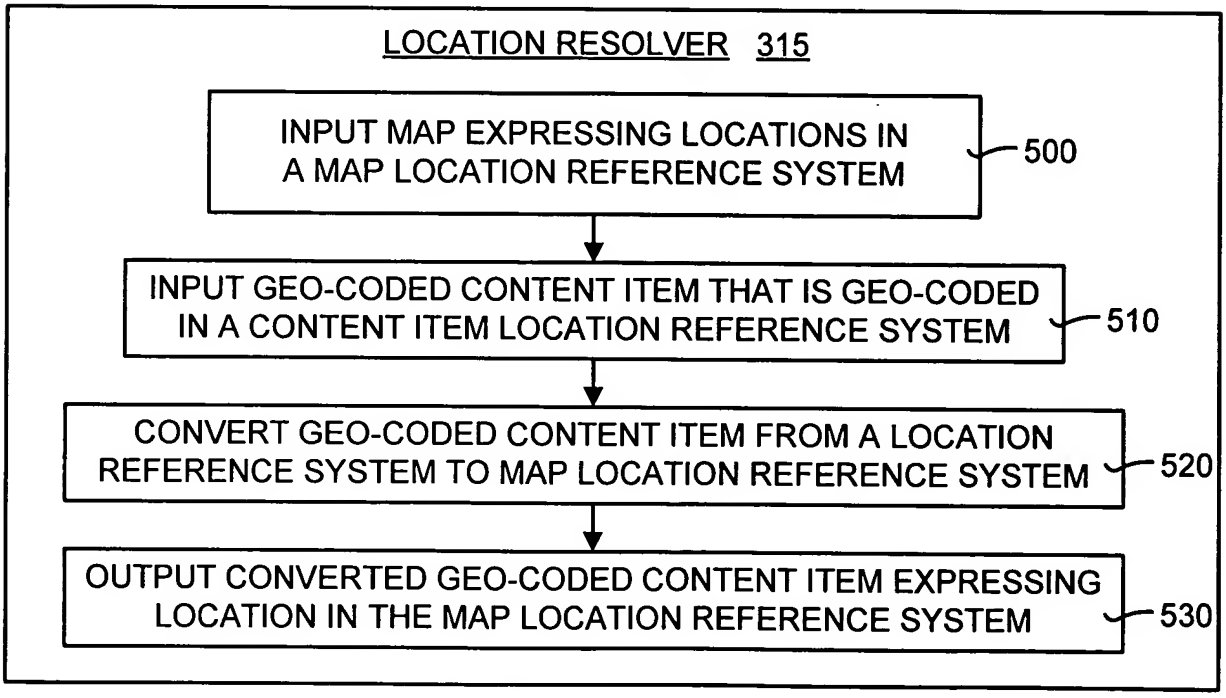
LOCATION RESOLVER 315
INPUT MAP EXPRESSING LOCATIONS IN A MAP LOCATION REFERENCE SYSTEM
500
INPUT GEO-CODED CONTENT ITEM THAT IS GEO-CODED IN A CONTENT ITEM LOCATION REFERENCE SYSTEM
510
CONVERT GEO-CODED CONTENT ITEM FROM A LOCATION REFERENCE SYSTEM TO MAP LOCATION REFERENCE SYSTEM
520
OUTPUT CONVERTED GEO-CODED CONTENT ITEM EXPRESSING LOCATION IN THE MAP LOCATION REFERENCE SYSTEM
530

FIG. 5

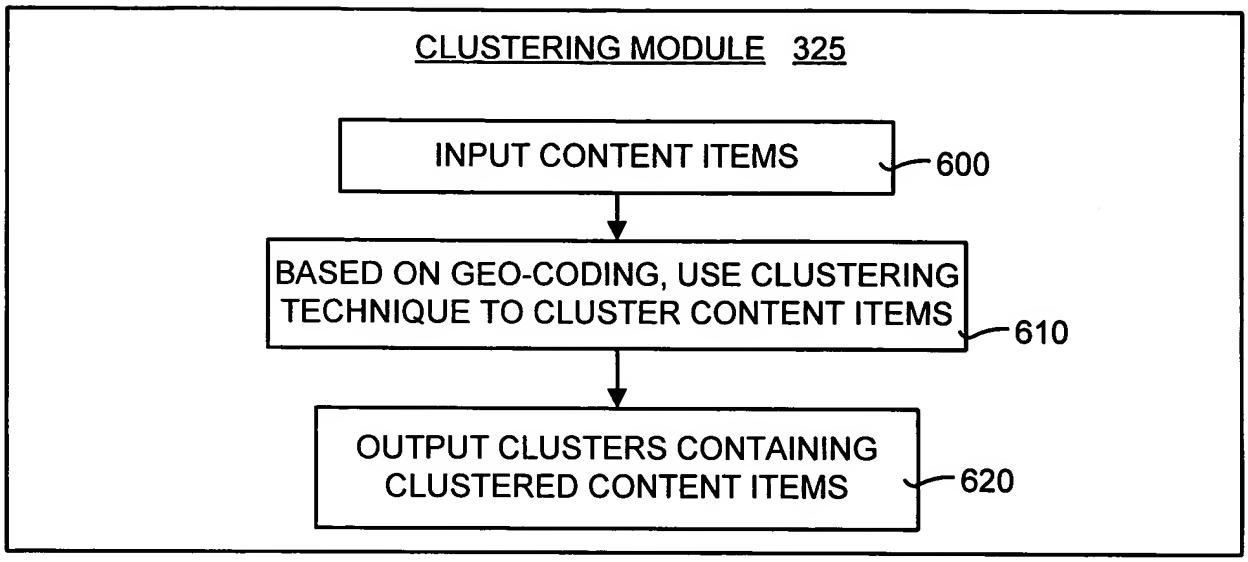
CLUSTERING MODULE 325
INPUT CONTENT ITEMS
600
BASED ON GEO-CODING, USE CLUSTERING TECHNIQUE TO CLUSTER CONTENT ITEMS
610
OUTPUT CLUSTERS CONTAINING CLUSTERED CONTENT ITEMS
620

FIG. 6

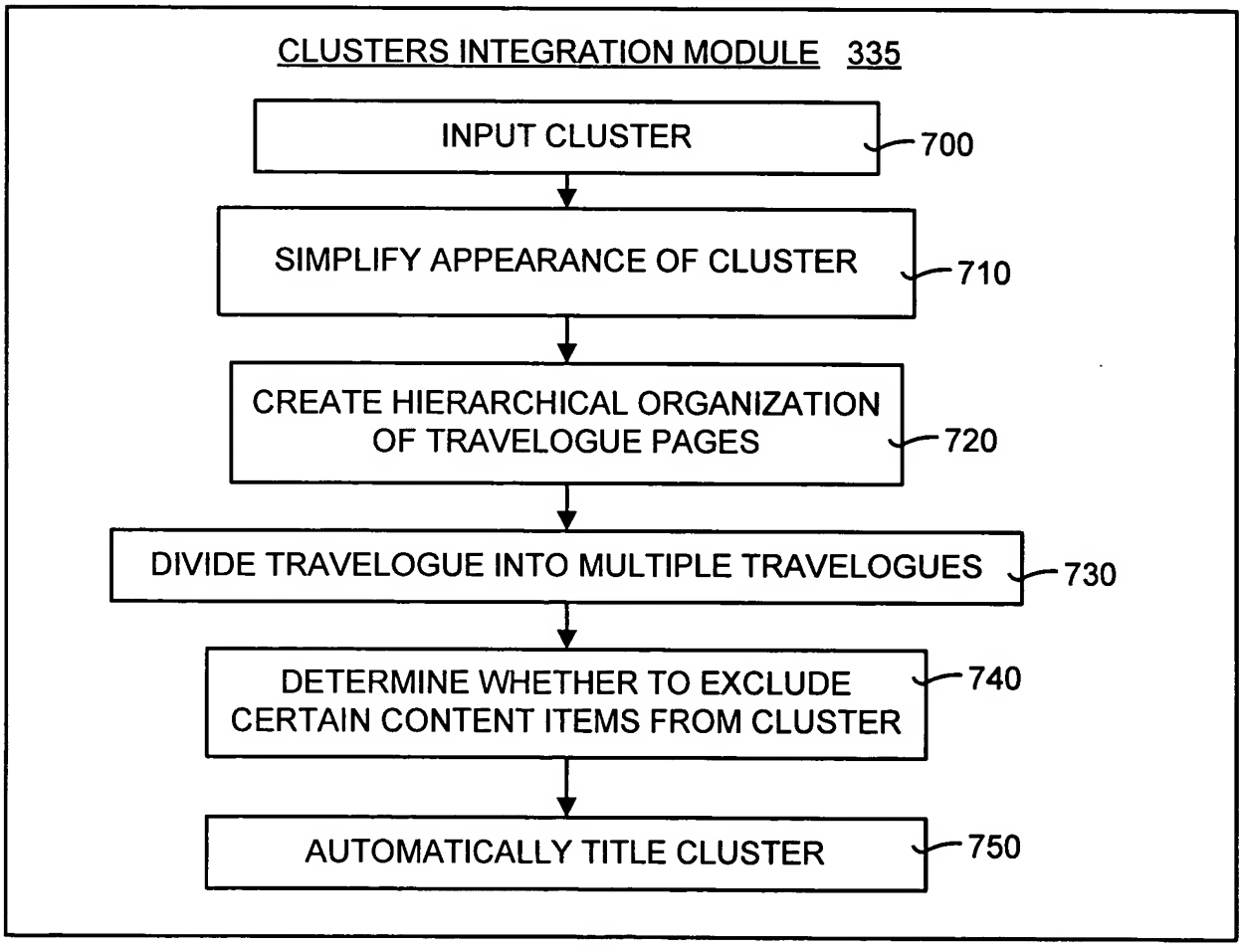
CLUSTERS INTEGRATION MODULE 335
INPUT CLUSTER
700
SIMPLIFY APPEARANCE OF CLUSTER
710
CREATE HIERARCHICAL ORGANIZATION OF TRAVELOGUE PAGES
720
DIVIDE TRAVELOGUE INTO MULTIPLE TRAVELOGUES
730
DETERMINE WHETHER TO EXCLUDE CERTAIN CONTENT ITEMS FROM CLUSTER
740
AUTOMATICALLY TITLE CLUSTER
750

FIG. 7

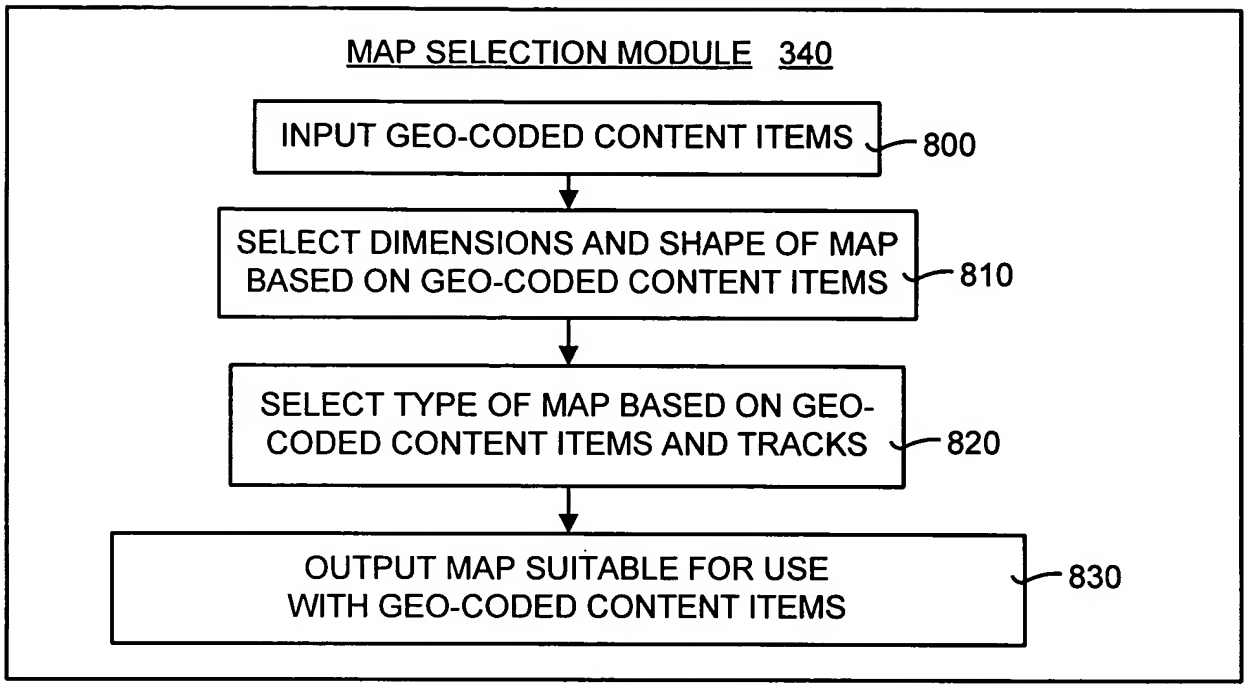
MAP SELECTION MODULE 340
INPUT GEO-CODED CONTENT ITEMS
800
SELECT DIMENSIONS AND SHAPE OF MAP BASED ON GEO-CODED CONTENT ITEMS
810
SELECT TYPE OF MAP BASED ON GEO-CODED CONTENT ITEMS AND TRACKS
820
OUTPUT MAP SUITABLE FOR USE WITH GEO-CODED CONTENT ITEMS
830

FIG. 8

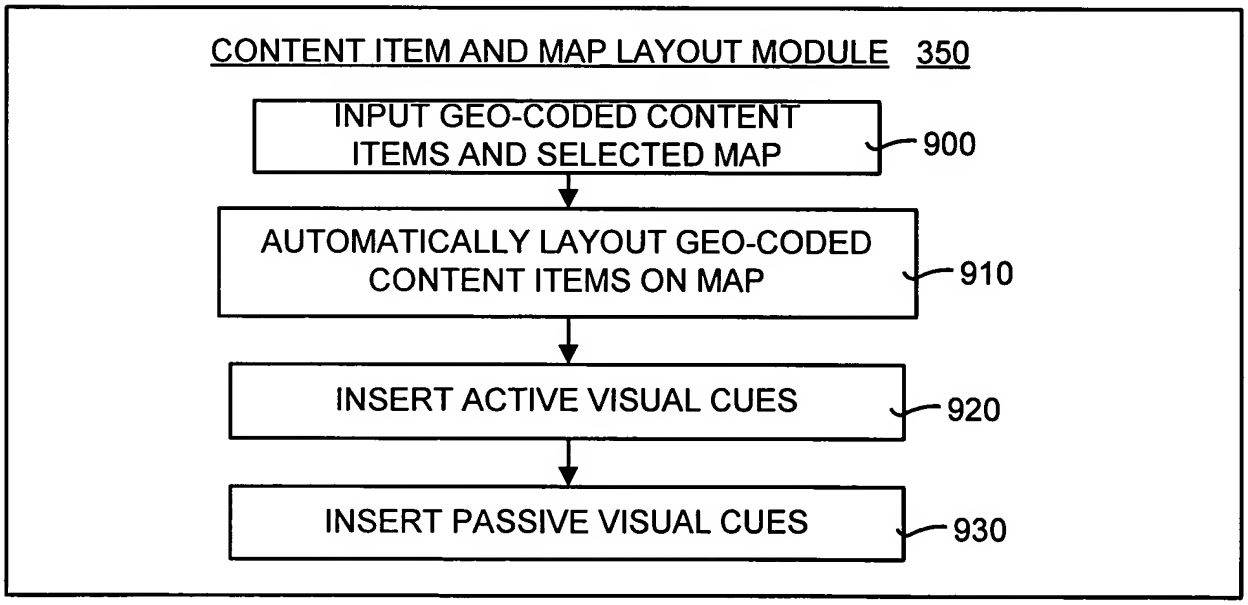
CONTENT ITEM AND MAP LAYOUT MODULE 350
INPUT GEO-CODED CONTENT ITEMS AND SELECTED MAP
900
AUTOMATICALLY LAYOUT GEO-CODED CONTENT ITEMS ON MAP
910
INSERT ACTIVE VISUAL CUES
920
INSERT PASSIVE VISUAL CUES
930

FIG. 9

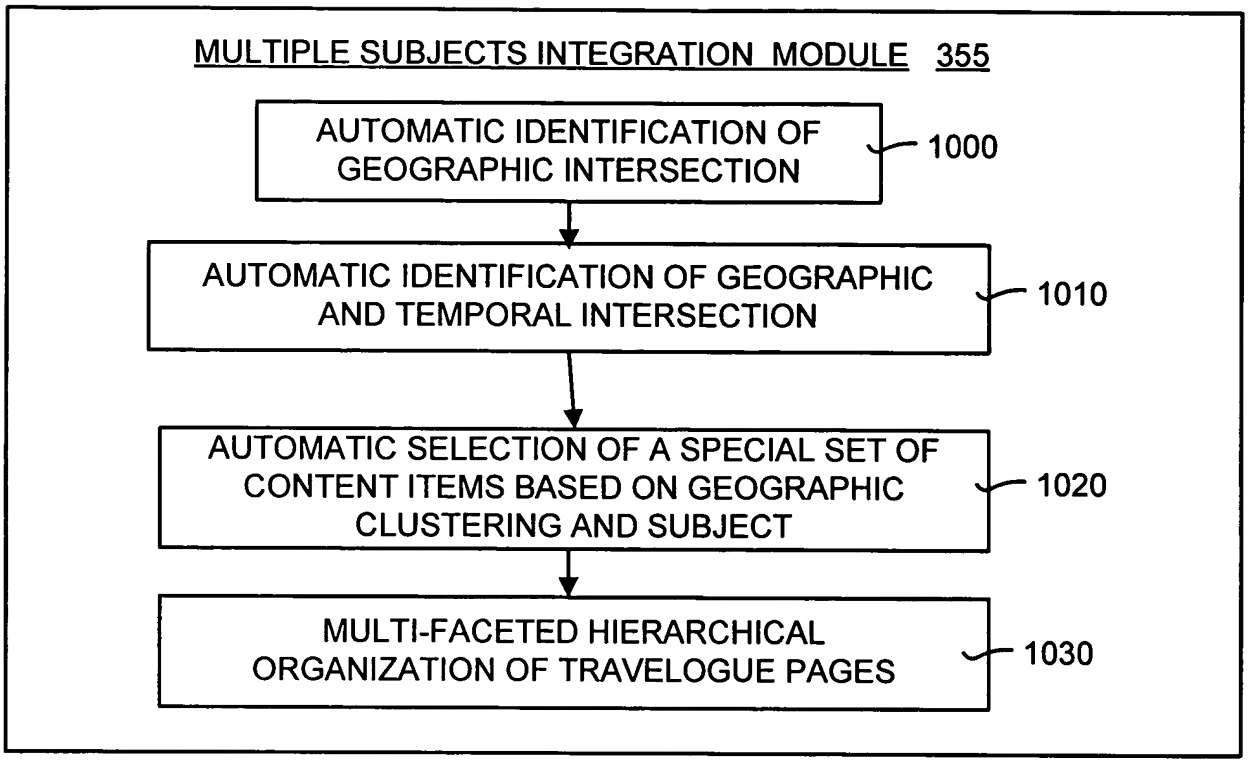
MULTIPLE SUBJECTS INTEGRATION MODULE 355
AUTOMATIC IDENTIFICATION OF GEOGRAPHIC INTERSECTION
1000
AUTOMATIC IDENTIFICATION OF GEOGRAPHIC AND TEMPORAL INTERSECTION
1010
AUTOMATIC SELECTION OF A SPECIAL SET OF CONTENT ITEMS BASED ON GEOGRAPHIC CLUSTERING AND SUBJECT
1020
MULTI-FACETED HIERARCHICAL ORGANIZATION OF TRAVELOGUE PAGES
1030

FIG. 10

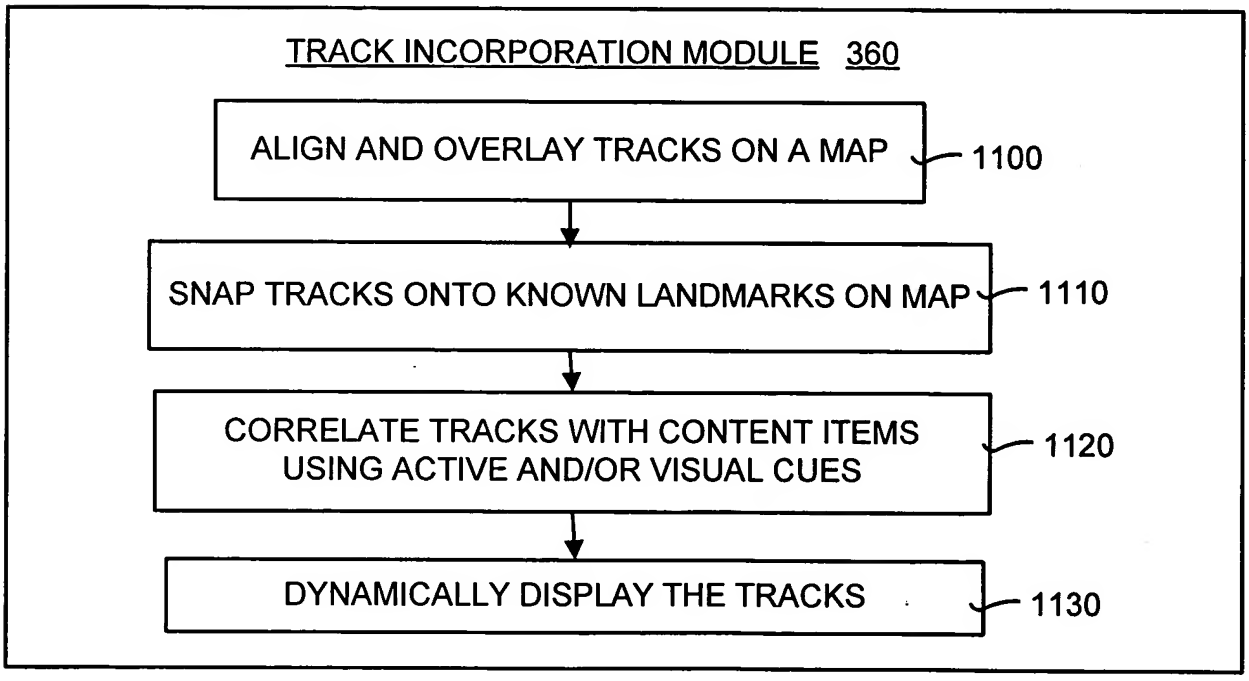
TRACK INCORPORATION MODULE 360
ALIGN AND OVERLAY TRACKS ON A MAP
1100
SNAP TRACKS ONTO KNOWN LANDMARKS ON MAP
1110
CORRELATE TRACKS WITH CONTENT ITEMS USING ACTIVE AND/OR VISUAL CUES
1120
DYNAMICALLY DISPLAY THE TRACKS
1130

FIG. 11

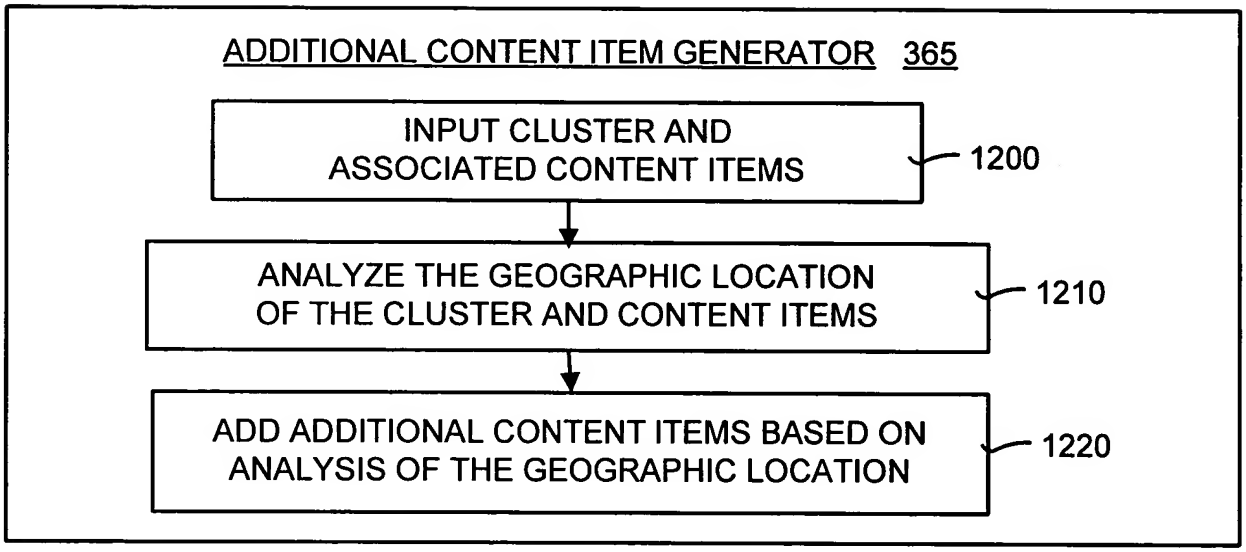
ADDITIONAL CONTENT ITEM GENERATOR 365
INPUT CLUSTER AND ASSOCIATED CONTENT ITEMS
1200
ANALYZE THE GEOGRAPHIC LOCATION OF THE CLUSTER AND CONTENT ITEMS
1210
ADD ADDITIONAL CONTENT ITEMS BASED ON ANALYSIS OF THE GEOGRAPHIC LOCATION
1220

FIG. 12